

GenCore version 5.1.6
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DB nucleic - nucleic search, using sw model

Run on: September 11, 2003, 15:02:03 ; Search time 4 Seconds

(without alignments)
2.435 Million cell updates/sec

Title: 10-009897-20

perfect score: 20

Sequence: 1 ctgttaatggcaagtcttagc 20

scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 0.5

searched: 112 seqs, 243491 residues

total number of hits satisfying chosen parameters: 224

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 112 summaries

database : 6492110.seq:*

Pred. No. 1 is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

result No.	score	query	match	length	db	id	description	
1	20	100.0	2583	1	US-09-184-418C-44		Sequence 44, Appli	
2	20	100.0	2640	1	US-09-184-418C-41		Sequence 41, Appli	
3	20	100.0	2658	1	US-09-184-418C-42		Sequence 42, Appli	
4	20	100.0	8992	1	US-09-184-418C-4		Sequence 4, Appli	
5	18.4	92.0	2544	1	US-09-184-418C-89		Sequence 89, Appli	
6	18.4	92.0	2598	1	US-09-184-418C-98		Sequence 98, Appli	
7	18.4	92.0	2631	1	US-09-184-418C-87		Sequence 87, Appli	
8	18.4	92.0	2646	1	US-09-184-418C-86		Sequence 86, Appli	
9	18.4	92.0	2655	1	US-09-184-418C-95		Sequence 5, Appli	
10	18.4	92.0	2721	1	US-09-184-418C-96		Sequence 9, Appli	
11	18.4	92.0	8972	1	US-09-184-418C-9		Sequence 10, Appli	
12	18.4	92.0	9060	1	US-09-184-418C-10		Sequence 62, Appli	
13	17.4	87.0	2529	1	US-09-184-418C-62		Sequence 18, Appli	
14	17.4	87.0	2541	1	US-09-184-418C-18		Sequence 60, Appli	
15	17.4	87.0	2601	1	US-09-184-418C-60		Sequence 15, Appli	
16	17.4	87.0	2610	1	US-09-184-418C-15		Sequence 61, Appli	
17	17.4	87.0	2652	1	US-09-184-418C-61		Sequence 16, Appli	
18	17.4	87.0	2661	1	US-09-184-418C-16		Sequence 6, Appli	
19	17.4	87.0	8934	1	US-09-184-418C-6		Sequence 1, Appli	
20	17.4	87.0	8968	1	US-09-184-418C-1		Sequence 80, Appli	
21	16.8	84.0	2607	1	US-09-184-418C-28		Sequence 77, Appli	
22	16.8	84.0	2666	1	US-09-184-418C-77		Sequence 78, Appli	
23	16.8	84.0	2684	1	US-09-184-418C-78		Sequence 8, Appli	
24	16.8	84.0	9010	1	US-09-184-418C-8		Sequence 36, Appli	
25	15.2	76.0	2538	1	US-09-184-418C-36		Sequence 54, Appli	
26	15.2	76.0	2538	1	US-09-184-418C-54		Sequence 28, Appli	
27	15.2	76.0	2550	1	US-09-184-418C-28		Sequence 51, Appli	
28	15.2	76.0	2571	1	US-09-184-418C-71		Sequence 25, Appli	
29	15.2	76.0	2579	1	US-09-184-418C-51		Sequence 33, Appli	
30	15.2	76.0	2597	1	US-09-184-418C-25		Sequence 68, Appli	
31	15.2	76.0	2606	1	US-09-184-418C-33		Sequence 52, Appli	
32	15.2	76.0	2643	1	US-09-184-418C-68			
33	15.2	76.0	2645	1	US-09-184-418C-52			

34	76.0	2663	1	US-09-184-418C-34	Sequence 34, Appli	
35	76.0	2688	1	US-09-184-418C-66	Sequence 26, Appli	
36	76.0	2693	1	US-09-184-418C-3	Sequence 69, Appli	
37	76.0	6966	1	US-09-184-418C-5	Sequence 5, Appli	
38	76.0	6987	1	US-09-184-418C-2	Sequence 2, Appli	
39	76.0	9050	1	US-09-184-418C-7	Sequence 7, Appli	
40	76.0	2571	1	US-09-184-418C-71	Sequence 71, Appli	
41	69.0	6959	1	US-09-184-418C-68	Sequence 69, Appli	
42	69.0	2688	1	US-09-184-418C-59	Sequence 7, Appli	
43	69.0	2690	1	US-09-184-418C-7	Sequence 10, Appli	
44	69.0	9050	1	US-09-184-418C-7	Sequence 10, Appli	
45	68.0	2574	1	US-09-184-418C-107	Sequence 10, Appli	
46	68.0	2633	1	US-09-184-418C-104	Sequence 10, Appli	
47	68.0	2651	1	US-09-184-418C-105	Sequence 10, Appli	
48	68.0	6987	1	US-09-184-418C-108	Sequence 11, Appli	
49	10.6	621	1	US-09-184-418C-61	Sequence 81, Appli	
50	10.6	624	1	US-09-184-418C-7	Sequence 92, Appli	
51	10.6	624	1	US-09-184-418C-63	Sequence 90, Appli	
52	10.6	53.0	624	1	US-09-184-418C-90	Sequence 50, Appli
53	10.4	52.0	624	1	US-09-184-418C-30	Sequence 57, Appli
54	10.4	52.0	3001	1	US-09-184-418C-74	Sequence 48, Appli
55	10.4	52.0	3011	1	US-09-184-418C-101	Sequence 53, Appli
56	10.4	52.0	3012	1	US-09-184-418C-32	Sequence 54, Appli
57	10.4	52.0	3017	1	US-09-184-418C-34	Sequence 55, Appli
58	9.8	49.0	579	1	US-09-184-418C-28	Sequence 56, Appli
59	9.8	49.0	3012	1	US-09-184-418C-57	Sequence 57, Appli
60	9.8	49.0	4307	1	US-09-184-418C-18	Sequence 48, Appli
61	9.8	49.0	8953	1	US-09-184-418C-3	Sequence 52, Appli
62	9.6	48.0	2538	1	US-09-184-418C-52	Sequence 53, Appli
63	9.6	48.0	2550	1	US-09-184-418C-54	Sequence 54, Appli
64	9.6	48.0	2557	1	US-09-184-418C-28	Sequence 55, Appli
65	9.6	48.0	2597	1	US-09-184-418C-51	Sequence 56, Appli
66	9.6	48.0	2606	1	US-09-184-418C-33	Sequence 57, Appli
67	9.6	48.0	2645	1	US-09-184-418C-52	Sequence 58, Appli
68	9.6	48.0	2657	1	US-09-184-418C-34	Sequence 59, Appli
69	9.6	48.0	2663	1	US-09-184-418C-56	Sequence 60, Appli
70	9.6	48.0	3012	1	US-09-184-418C-101	Sequence 61, Appli
71	9.6	48.0	3011	1	US-09-184-418C-57	Sequence 62, Appli
72	9.6	48.0	3017	1	US-09-184-418C-83	Sequence 63, Appli
73	9.6	48.0	3012	1	US-09-184-418C-92	Sequence 64, Appli
74	9.6	48.0	4307	1	US-09-184-418C-48	Sequence 48, Appli
75	9.6	48.0	8954	1	US-09-184-418C-6	Sequence 6, Appli
76	9.6	48.0	8959	1	US-09-184-418C-11	Sequence 11, Appli
77	9.6	48.0	8966	1	US-09-184-418C-5	Sequence 5, Appli
78	9.6	48.0	8968	1	US-09-184-418C-1	Sequence 1, Appli
79	9.6	48.0	8972	1	US-09-184-418C-9	Sequence 9, Appli
80	9.6	48.0	8992	1	US-09-184-418C-4	Sequence 4, Appli
81	9.6	48.0	9060	1	US-09-184-418C-10	Sequence 10, Appli
82	9.6	48.0	9624	1	US-09-184-418C-40	Sequence 40, Appli
83	9.6	47.0	624	1	US-09-184-418C-66	Sequence 66, Appli
84	9.2	46.0	579	1	US-09-184-418C-63	Sequence 63, Appli
85	9.2	46.0	2583	1	US-09-184-418C-44	Sequence 44, Appli
86	9.2	46.0	2640	1	US-09-184-418C-41	Sequence 41, Appli
87	9.2	46.0	2658	1	US-09-184-418C-42	Sequence 42, Appli
88	9.2	46.0	1479	1	US-09-184-418C-21	Sequence 21, Appli
89	9.2	45.0	291	1	US-09-184-418C-40	Sequence 40, Appli
90	9.2	45.0	1496	1	US-09-184-418C-82	Sequence 29, Appli
91	9.2	45.0	1503	1	US-09-184-418C-89	Sequence 89, Appli
92	9.2	45.0	2344	1	US-09-184-418C-32	Sequence 32, Appli
93	9.2	45.0	624	1	US-09-184-418C-45	Sequence 45, Appli
94	9.2	45.0	1476	1	US-09-184-418C-87	Sequence 87, Appli
95	9.2	45.0	1479	1	US-09-184-418C-86	Sequence 86, Appli
96	9.2	45.0	1496	1	US-09-184-418C-95	Sequence 95, Appli
97	9.2	45.0	2721	1	US-09-184-418C-96	Sequence 23, Appli
98	9.2	45.0	2646	1	US-09-184-418C-76	Sequence 76, Appli
99	9.2	45.0	1476	1	US-09-184-418C-100	Sequence 100, Appli
100	9.2	45.0	1479	1	US-09-184-418C-82	Sequence 82, Appli
101	9.2	45.0	1496	1	US-09-184-418C-96	Sequence 96, Appli
102	9.2	45.0	1503	1	US-09-184-418C-89	Sequence 39, Appli
103	8.8	44.0	579	1	US-09-184-418C-19	Sequence 49, Appli
104	8.8	44.0	579	1	US-09-184-418C-49	Sequence 49, Appli
105	8.8	44.0	579	1	US-09-184-418C-75	Sequence 75, Appli

ALIGNMENTS

RESULT 1

US-09-184-418C-44

; Sequence 44, Application US/09184418C

; Patent No. 6492110

; GENERAL INFORMATION:

; APPLICANT: Hahn, Beatrice

; APPLICANT: Gao, Feng

; APPLICANT: Shaw, George

; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1

; FILE REFERENCE: D6287

; CURRENT APPLICATION NUMBER: US/09184418C

; CURRENT FILING DATE: 1999-11-02

; NUMBER OF SEQ ID NOS: 112

; SEQ ID NO 42

; LENGTH: 2658

; TYPE: DNA

; ORGANISM: Human immunodeficiency virus type 1

; FEATURE: OTHER INFORMATION: isolate=92RW009; gene=rev

US-09-184-418C-42

Query Match 100.0%; Score 20; DB 1; Length 2658;

Best Local Similarity 100.0%; Pred. No. 0.34; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CTGTTAAATGGCAGTCAGC 20

Db 1046 CTGTTAAATGGCAGTCAGC 1065

RESULT 2

US-09-184-418C-41

; Sequence 41, Application US/09184418C

; Patent No. 6492110

; GENERAL INFORMATION:

; APPLICANT: Hahn, Beatrice

; APPLICANT: Gao, Feng

; APPLICANT: Shaw, George

; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN VIRUS TYPE 1

; FILE REFERENCE: D6287

; CURRENT APPLICATION NUMBER: US/09184418C

; CURRENT FILING DATE: 1999-11-02

; NUMBER OF SEQ ID NOS: 112

; SEQ ID NO 4

; LENGTH: 8992

; TYPE: DNA

; ORGANISM: Human immunodeficiency virus type 1

; FEATURE: OTHER INFORMATION: isolate=92RW009; 139-1624-gag; 1690-4428-pol(N-terminus uncertain); 4313-4951:vir; 4811-5811:pr; 5162-801:at; 5301-7958:rev;

US-09-184-418C-4

Query Match 100.0%; Score 20; DB 1; Length 8992;

Best Local Similarity 100.0%; Pred. No. 0.31; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CTGTTAAATGGCAGTCAGC 20

Db 6346 CTGTTAAATGGCAGTCAGC 6365

RESULT 3

US-09-184-418C-42

; Sequence 42, Application US/09184418C

; Patent No. 6492110

; GENERAL INFORMATION:

; APPLICANT: Hahn, Beatrice

; APPLICANT: Gao, Feng

; APPLICANT: Shaw, George

; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

; FILE REFERENCE: D6287

; CURRENT APPLICATION NUMBER: US/09184418C

; CURRENT FILING DATE: 1999-11-02

; NUMBER OF SEQ ID NOS: 112

; SEQ ID NO 42

; LENGTH: 2640

; TYPE: DNA

; ORGANISM: Human immunodeficiency virus type 1

; FEATURE: OTHER INFORMATION: isolate=92RW009; gene=tat

US-09-184-418C-41

Query Match 100.0%; Score 20; DB 1; Length 2640;

Best Local Similarity 100.0%; Pred. No. 0.34; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CTGTTAAATGGCAGTCAGC 20

Db 1185 CTGTTAAATGGCAGTCAGC 1204

US-09-184-418C-87

TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 89
LENGTH: 2544
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=96AM751.3; gene=env
-09-184-418C-89

RESULT 6
US-09-184-418C-86
Query Match 92.0%; Score 18.4; DB 1; Length 2544;
Best Local Similarity 95.0%; Pred. No. 0.9;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 86
; LENGTH: 2646
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=96AM751.3; gene=env
US-09-184-418C-86

Query Match 92.0%; Score 18.4; DB 1; Length 2646;
Best Local Similarity 95.0%; Pred. No. 0.9;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; LENGTH: 2598
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94CY017.41; gene=env
-09-184-418C-98

RESULT 7
US-09-184-418C-95
Query Match 92.0%; Score 18.4; DB 1; Length 2598;
Best Local Similarity 95.0%; Pred. No. 0.9;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; LENGTH: 2655
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94CY017.41; gene=env
US-09-184-418C-95

Query Match 92.0%; Score 18.4; DB 1; Length 2655;
Best Local Similarity 95.0%; Pred. No. 0.9;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; LENGTH: 2671
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=96ZM751.3; gene=rev
US-09-184-418C-97

RESULT 10
 US-09-184-418C-96
 ; Sequence 96, Application US/09184418C
 ; GENERAL INFORMATION:
 ; Patient No. 6492110
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; IMMUNODEFICIENCY VIRUS TYPE 1
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 96
 ; LENGTH: 2721
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=94CY07.41; gene=rev
 ; US-09-184-418C-96

Query Match
 Best Local Similarity 92.0%; Score 18.4; DB 1; Length 2721;
 Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 CTGTTAAATGGCAGTCAGC 20
 1058 CTGTTAAATGGCAGTCAGC 1077

RESULT 11
 US-09-184-418C-9
 ; Sequence 9, Application US/09184418C
 ; GENERAL INFORMATION:
 ; Patient No. 6492110
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; IMMUNODEFICIENCY VIRUS TYPE 1
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 9
 ; LENGTH: 8972
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=96ZM751.3; 137.1632:gag;1419.4435:pol;
 ; OTHER INFORMATION: 1380.4958:vif; 4890.5198:vpu; 5169.7814:tat;
 ; OTHER INFORMATION: 5308.7938:rev; 5407.5667:vpu; 5585.8128:env;
 ; OTHER INFORMATION: 8130.8753:nef
 ; US-09-184-418C-9

Query Match
 Best Local Similarity 92.0%; Score 18.4; DB 1; Length 8972;
 Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 CTGTTAAATGGCAGTCAGC 20
 6365 CTGTTAAATGGCAGTCAGC 6384

RESULT 12
 US-09-184-418C-10
 ; Sequence 10, Application US/09184418C
 ; GENERAL INFORMATION:
 ; Patient No. 6492110
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George

RESULT 10
 US-09-184-418C-1
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; IMMUNODEFICIENCY VIRUS TYPE 1
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 10
 ; LENGTH: 9060
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=94CY07.41; 159.1649:gag;
 ; OTHER INFORMATION: 1442.4453:pol; 4398.4976:vif; 4916.5206:vpr;
 ; OTHER INFORMATION: 518.7841:cat; 5326.8046:rev; 5591.8188:env;
 ; OTHER INFORMATION: 5428.5673:vpu; 5591.8843:nef
 ; US-09-184-418C-10

Query Match
 Best Local Similarity 92.0%; Score 18.4; DB 1; Length 9060;
 Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 CTGTTAAATGGCAGTCAGC 20
 6383 CTGTTAAATGGCAGTCAGC 6402

RESULT 13
 US-09-184-418C-62
 ; Sequence 62, Application US/09184418C
 ; General Information:
 ; Patient No. 6492110
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; IMMUNODEFICIENCY VIRUS TYPE 1
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 62
 ; LENGTH: 2529
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=93BR029; gene-env
 ; US-09-184-418C-62

Query Match
 Best Local Similarity 87.0%; Score 17.4; DB 1; Length 2529;
 Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 2 TGTTAAATGGCAGTCAGC 20
 785 TGTTAAATGGCAGTCAGC 803

RESULT 14
 US-09-184-418C-18
 ; Sequence 18, Application US/09184418C
 ; General Information:
 ; Patient No. 6492110
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; IMMUNODEFICIENCY VIRUS TYPE 1
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 18
 ; LENGTH: 2541

```

TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE: OTHER INFORMATION: isolate=93BR020; gene=env
US-09-184-418C-18

Query Match 87.0%; Score 17.4; DB 1; Length 2541;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 6492110
LENGTH: 2652

RESULT 15
Query Match 87.0%; Score 17.4; DB 1; Length 2541;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 6492110
LENGTH: 2652

Organism: Human immunodeficiency virus type 1
Feature: OTHER INFORMATION: isolate=93BR029; gene=tat
US-09-184-418C-50

Query Match 87.0%; Score 17.4; DB 1; Length 2601;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 1189
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 1189
LENGTH: 2601

Organism: Human immunodeficiency virus type 1
Feature: OTHER INFORMATION: isolate=93BR029; gene=tat
US-09-184-418C-15

Query Match 87.0%; Score 17.4; DB 1; Length 2601;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 1189
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 1189
LENGTH: 2601

Organism: Human immunodeficiency virus type 1
Feature: OTHER INFORMATION: isolate=93BR020; gene=tat
US-09-184-418C-15

Query Match 87.0%; Score 17.4; DB 1; Length 2610;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 1047
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 1047
LENGTH: 2610

Organism: Human immunodeficiency virus type 1
Feature: OTHER INFORMATION: isolate=93BR020; gene=tat
US-09-184-418C-6

Query Match 87.0%; Score 17.4; DB 1; Length 2661;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 1050
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 1050
LENGTH: 2661

Organism: Human immunodeficiency virus type 1
Feature: OTHER INFORMATION: isolate=93BR020; gene=tat
US-09-184-418C-6

Query Match 87.0%; Score 17.4; DB 1; Length 2661;
Best Local Similarity 94.7%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
SEQ ID NO: 1047
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US-09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO: 1047
LENGTH: 2661

```

APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 6
 LENGTH: 8954
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=93BR029; 142..157:gene="gag"; 1437..1448:gene="pol";
 OTHER INFORMATION: isolate=93BR029; 142..157:gene="vif"; 4911..5201:gene="vpr";
 OTHER INFORMATION: 5182..7782:gene="tat"; 521..7972:gene="rev";
 OTHER INFORMATION: 5586..8114:gene="env"; 8116..8736:gene="nef";
 US-09-184-418C-6

Query Match 87 0%; Score 17.4; DB 1; Length 8954;
 Best Local Similarity 94.7%; Pred. No. 1.5;
 Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 2 TGTAAATGGCAAGCTAGC 20
 Db 6370 TGTAAATGGCAAGCTAGC 6388

RESULT 20
 US-09-184-418C-1
 Sequence 1, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 1
 LENGTH: 8968
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=93BR020; 133..1611:gene; 4369..4947:rev;
 OTHER INFORMATION: 488..517:gene; 5158..7767:tat; 5297..7937:rev;
 OTHER INFORMATION: 5396..5641:vpu; 5559..8099:env; 8101..8727:nef
 US-09-184-418C-1

Query Match 87 0%; Score 17.4; DB 1; Length 8968;
 Best Local Similarity 94.7%; Pred. No. 1.5;
 Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 2 TGTAAATGGCAAGCTAGC 20
 Db 6343 TGTAAATGGCAAGCTAGC 6361

RESULT 21
 US-09-184-418C-80
 Sequence 80, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 78
 LENGTH: 2684
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=962M651.8; gene=rev
 US-09-184-418C-78

Query Match 84.0%; Score 16.8; DB 1; Length 2684;
 Best Local Similarity 90.0%; Pred. No. 2.3;

RESULT 22
 US-09-184-418C-77
 Sequence 77, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 77
 LENGTH: 2666
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=962M651.8; gene=tat
 US-09-184-418C-77

Query Match 84.0%; Score 16.8; DB 1; Length 2666;
 Best Local Similarity 90.0%; Pred. No. 2.3;
 Matches 18; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Qy 1 CTGTTAAATGGCAAGCTAGC 20
 Db 1220 CTGTTAAATGGCAAGCTAGC 1239

RESULT 23
 US-09-184-418C-78
 Sequence 78, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 78
 LENGTH: 2684
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=962M651.8; gene=rev
 US-09-184-418C-78

Query Match 84.0%; Score 16.8; DB 1; Length 2684;

Matches 18; Conservative 0; Mismatches 2; Indels 0; Gaps 0; Length: 9010
 Qy 1 CTGTTAAATGGCAGTCTAGC 20 ; Sequence 8, Application US/09184418C
 Db 1081 CTGTTAAATGGCAGTCTAGC 1100 ;
 RESULT 24
 US-09-184-418C-8
 ; Sequence 8, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 54
 ; LENGTH: 2538
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: Isolate=92NG003; gene=env
 US-09-184-418C-54

Query Match 76.0%; Score 15.2; DB 1; Length 2538;
 Best Local Similarity 85.0%; Pred. No. 6.1;
 Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 RESULT 27
 US-09-184-418C-28
 ; Sequence 28, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 28
 ; LENGTH: 2550
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: Isolate=92NG003; gene=env
 US-09-184-418C-28

Query Match 76.0%; Score 15.2; DB 1; Length 2550;
 Best Local Similarity 85.0%; Pred. No. 6.1;
 Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 RESULT 25
 US-09-184-418C-36
 ; Sequence 36, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 36
 ; LENGTH: 2538
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: Isolate=90CR056; gene=env
 US-09-184-418C-36

Query Match 76.0%; Score 15.2; DB 1; Length 2538;
 Best Local Similarity 85.0%; Pred. No. 6.1;
 Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 RESULT 28
 US-09-184-418C-71
 ; Sequence 71, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 77
 ; LENGTH: 2538
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: Isolate=90CR056; gene=env
 US-09-184-418C-71

Query Match 76.0%; Score 15.2; DB 1; Length 2538;
 Best Local Similarity 85.0%; Pred. No. 6.1;
 Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 RESULT 26
 US-09-184-418C-20
 ; Sequence 20, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 77
 ; LENGTH: 2538
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: Isolate=92NG083; gene=env
 US-09-184-418C-20

CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 71
; LENGTH: 2371
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94CY032.3; gene=env
US-09-184-418C-71

RESULT 29
Query Match 76.0%; Score 15.2; DB 1; Length 2571;
Best Local Similarity 85.0%; Pred. No. 6.1;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 CTGTTAAATGGCACTCTAGC 20
Db 793 CTGTTAAATGGCACTCTAGC 812

US-09-184-418C-51
Sequence 51; Application US/09184418C
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 51
; LENGTH: 2579
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92NG003; gene=tat
US-09-184-418C-51

RESULT 29
Query Match 76.0%; Score 15.2; DB 1; Length 2571;
Best Local Similarity 85.0%; Pred. No. 6.1;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 CTGTTAAATGGCACTCTAGC 20
Db 793 CTGTTAAATGGCACTCTAGC 1212

US-09-184-418C-25
Sequence 25; Application US/09184418C
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 25
; LENGTH: 2597
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92NG003; gene=tat
US-09-184-418C-25

Query Match 76.0%; Score 15.2; DB 1; Length 2597;
Best Local Similarity 85.0%; Pred. No. 6.1;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 CTGTTAAATGGCACTCTAGC 20
Db 1191 CTGTTAAATGGCACTCTAGC 1210

RESULT 33
US-09-184-418C-52

```

Sequence 52, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 52
; LENGTH: 2045
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92NG003; gene=rev
US-09-184-418C-52

Query Match 76.0%; Score 15.2; DB 1; Length 2645;
Best Local Similarity 85.0%; Pred. No. 6.1;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Qy 1 CTGTTAAATGGCACTCTAGC 20
Db 1054 CTACTAAATGGTACCTAC 1073

RESULT 34
US-09-184-418C-34
; Sequence 34, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 34
; LENGTH: 2657
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=90CR056; gene=rev; CDS: join(5316..5391,
US-09-184-418C-34

Query Match 76.0%; Score 15.2; DB 1; Length 2657;
Best Local Similarity 85.0%; Pred. No. 6.1;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Qy 1 CTGTTAAATGGCACTCTAGC 20
Db 1018 CTATTAATGGAACCTAC 1037

RESULT 35
US-09-184-418C-26
; Sequence 26, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 35
; LENGTH: 8953
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate="90CR056"; 137..1639:gene="gag"; 4388..4966:gene="vif";
; OTHER INFORMATION: 4908..5196:gene "vpr"; 5177..7702:gene="tat";
; OTHER INFORMATION: 5316..7912:gene="rev"; 5408..5600:gene="trp";
; OTHER INFORMATION: 5577..8114:gene="env"; 8117..8737:gene="nef";
; OTHER INFORMATION: 5577..8114:gene="env"; 8117..8737:gene="nef";

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US-09-184-418C-3

Query Match 76.0%; Score 15.2; DB 1; Length 8953;
Best Local Similarity 85.0%; Pred. No. 5.3; Length 8953;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 6333 CTATTAATGGAAAGCCTAGC 6352

RESULT 40

US-09-184-418C-7

; Sequence 7; Application US/09184418C

; Patent No. 6492110

; GENERAL INFORMATION:

; APPLICANT: Hahn, Beatrice

; APPLICANT: Gao, Feng

; APPLICANT: Shaw, George

; TITLE OF INVENTION: CLOVES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1

; FILE REFERENCE: D6287

; CURRENT APPLICATION NUMBER: US/09/184.418C

; CURRENT FILING DATE: 1999-11-02

; NUMBER OF SEQ ID NOS: 112

; SEQ ID NO 7

; LENGTH: 9050

; TYPE: DNA

; ORGANISM: Human immunodeficiency virus type 1

; FEATURE:

; OTHER INFORMATION: isolate="94CY032.3"; 156..1658;"gag"; 1454..4462;"pol";

; OTHER INFORMATION: 4407..4485;"vif"; 4925..5212;"vpr"; 5200..7842;"tat";

; OTHER INFORMATION: 5339..8026;"rev"; 5433..5680;"vpu"; 5598..8168;"env";

; OTHER INFORMATION: 8170..8829;"nef";

US-09-184-418C-7

Query Match 76.0%; Score 15.2; DB 1; Length 9050;

Best Local Similarity 85.0%; Pred. No. 5.3;

Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 6390 CTGTTAAATGGAAAGGAGCTAGC 6409

RESULT 41

US-09-184-418C-71/c

; Sequence 71; Application US/09184418C

; Patent No. 6492110

; GENERAL INFORMATION:

; APPLICANT: Hahn, Beatrice

; APPLICANT: Gao, Feng

; APPLICANT: Shaw, George

; TITLE OF INVENTION: CLOVES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1

; FILE REFERENCE: D6287

; CURRENT APPLICATION NUMBER: US/09/184.418C

; CURRENT FILING DATE: 1999-11-02

; NUMBER OF SEQ ID NOS: 112

; SEQ ID NO 71

; LENGTH: 2571

; TYPE: DNA

; ORGANISM: Human immunodeficiency virus type 1

; FEATURE:

; OTHER INFORMATION: isolate="94CY032.3; gene=env

US-09-184-418C-71

Query Match 69.0%; Score 13.8; DB 1; Length 2571;

Best Local Similarity 88.2%; Pred. No. 14;

Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 554 TTAAATGGCAAGCTAGC 538

RESULT 42

US-09-184-418C-68/c

```

; Sequence 68, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 68
; LENGTH: 2643
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE: OTHER INFORMATION: isolate=94CT032.3; gene=tat
US-09-184-418C-68

Query Match
Best Local Similarity 69.0%; Score 13.8; DB 1; Length 2643;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY 4 TTAATGGCAGTCTAGC 20
Db 952 TTAATGGCAGTCTAGC 936

RESULT 43
US-09-184-418C-69/C
Sequence 69, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 69
; LENGTH: 2688
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE: OTHER INFORMATION: isolate=94CT032.3; gene=rev
US-09-184-418C-69

Query Match
Best Local Similarity 69.0%; Score 13.8; DB 1; Length 2688;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY 4 TTAATGGCAGTCTAGC 20
Db 813 TTAATGGCAGTCTAGC 797

RESULT 44
US-09-184-418C-7/C
Sequence 7, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 7
; LENGTH: 2633
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE: OTHER INFORMATION: isolate=94CT032.3; gene=tat
US-09-184-418C-7

; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 7
; LENGTH: 9050
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate="94CY032.3"; 156..1658;"gag"; 1454..4462;"pol";
; OTHER INFORMATION: 4407..4985;"vif"; 4925..5212;"vpr"; 5200..5842;"tat";
; OTHER INFORMATION: 5339..8026;"rev"; 5435..5680;"vpu"; 5598..8168;"env";
; OTHER INFORMATION: 8170..8829;"nef"
US-09-184-418C-7

Query Match
Best Local Similarity 69.0%; Score 13.8; DB 1; Length 9050;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY 4 TTAATGGCAGTCTAGC 20
Db 6151 TTAATGGCAGTCTAGC 6135

RESULT 45
US-09-184-418C-107
Sequence 107, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 107
; LENGTH: 2574
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94IN476.104; gene=env
US-09-184-418C-107

Query Match
Best Local Similarity 68.0%; Score 13.6; DB 1; Length 2574;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
QY 1 CTGTTAATGGCAGTCTAGC 20
Db 769 CTGTTAATGGCAGTCTAGC 788

RESULT 46
US-09-184-418C-104
Sequence 104, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO: 104
; LENGTH: 2633
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94IN476.104; gene=tat
US-09-184-418C-104

```


TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 90
 LENGTH: 624
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=90AM751.3; gene=nef
 US-09-184-418C-90

Query Match
 Best Local Similarity 76.5%; Score 10.6; DB 1; Length 624;
 Matches 13; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 SEQ ID NO: 2
 LENGTH: 52

RESULT 52
 US-09-184-418C-2/c
 Sequence 2, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 2
 LENGTH: 8987
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=90NG083; 156.362:gag; 1727.4465:pol;
 OTHER INFORMATION: 4418.0988:vif; 4928.5215:ypr; 5195.7755:tat;
 OTHER INFORMATION: 5338.8000:rev; 5440.5466:vpu; 5533.8142:env;
 OTHER INFORMATION: 8144.8767:nef
 US-09-184-418C-2

Query Match
 Best Local Similarity 76.5%; Score 10.6; DB 1; Length 8987;
 Matches 13; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 SEQ ID NO: 3
 LENGTH: 19

RESULT 19
 US-09-184-418C-108
 Sequence 108, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 108
 LENGTH: 624
 TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=94IN476.104; gene=nef
 US-09-184-418C-108

Query Match
 Best Local Similarity 70.0%; Score 10.4; DB 1; Length 624;
 Matches 14; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 SEQ ID NO: 1
 LENGTH: 20

RESULT 20
 US-09-184-418C-74
 Sequence 74, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 74
 LENGTH: 3000
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=96ZM651.8; gene=pol
 US-09-184-418C-74

Query Match
 Best Local Similarity 91.7%; Score 10.4; DB 1; Length 3000;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 SEQ ID NO: 6
 LENGTH: 17

RESULT 17
 US-09-184-418C-74
 Sequence 6, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 101
 LENGTH: 3011
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=94IN476.104; gene=pol
 US-09-184-418C-101

Query Match
 Best Local Similarity 91.7%; Score 10.4; DB 1; Length 3011;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 SEQ ID NO: 6
 LENGTH: 17

Db 2662 AAATGGCACTAT 2673

RESULT 56

US-09-184-418C-92

Sequence 92, Application US/09184418C

Patent No. 6492110

GENERAL INFORMATION:

APPLICANT: Hahn, Beatrice

APPLICANT: Gao, Feng

APPLICANT: Shaw, George

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

SEQ ID NO 92

LENGTH: 3012

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

FEATURE:

OTHER INFORMATION: Isolate=94Cv017.41; gene=pol

US-09-184-418C-92

Query Match 52.0%; Score 10.4%; DB 1; Length 3012;

Best Local Similarity 91.7%; Prod. No. 80;

Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 6 AAATGGCACTAT 17

Db 2675 AAATGGCACTAT 2686

RESULT 57

US-09-184-418C-83

Sequence 83, Application US/09184418C

Patent No. 6492110

GENERAL INFORMATION:

APPLICANT: Hahn, Beatrice

APPLICANT: Gao, Feng

APPLICANT: Shaw, George

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

SEQ ID NO 83

LENGTH: 3017

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

FEATURE:

OTHER INFORMATION: Isolate=96AM751.3; gene=pol

US-09-184-418C-83

Query Match 52.0%; Score 10.4%; DB 1; Length 3017;

Best Local Similarity 91.7%; Prod. No. 80;

Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 6 AAATGGCACTAT 17

Db 2680 AAATGGCACTAT 2691

RESULT 58

US-09-184-418C-30/c

Sequence 30, Application US/09184418C

Patent No. 6492110

GENERAL INFORMATION:

APPLICANT: Hahn, Beatrice

APPLICANT: Gao, Feng

APPLICANT: Shaw, George

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

SEQ ID NO 46

LENGTH: 43.07

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

RESULT 56

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

FILE REFERENCE: D6287

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

NUMBER OF SEQ ID NOS: 112

SEQ ID NO 30

LENGTH: 519

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

FEATURE:

OTHER INFORMATION: Isolate=90CR056; gene=vif

US-09-184-418C-30

Query Match 49.0%; Score 9.8%; DB 1; Length 579;

Best Local Similarity 84.6%; Prod. No. 1.7e+02;

Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 5 TAATGGCACTCT 17

Db 243 TAATGGCACTCT 231

RESULT 59

US-09-184-418C-57

Sequence 57, Application US/09184418C

Patent No. 6492110

GENERAL INFORMATION:

APPLICANT: Hahn, Beatrice

APPLICANT: Gao, Feng

APPLICANT: Shaw, George

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

FILE REFERENCE: D6287

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

NUMBER OF SEQ ID NOS: 112

SEQ ID NO 57

LENGTH: 3012

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

FEATURE:

OTHER INFORMATION: Isolate=93BR029; gene=pol; note=NH2-terminus

US-09-184-418C-57

Query Match 49.0%; Score 9.8%; DB 1; Length 3012;

Best Local Similarity 84.6%; Prod. No. 1e+02;

Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2 TGTAAATGGCAG 14

Db 2265 TGTAAATGGCAG 2277

RESULT 60

US-09-184-418C-48

Sequence 48, Application US/09184418C

Patent No. 6492110

GENERAL INFORMATION:

APPLICANT: Hahn, Beatrice

APPLICANT: Gao, Feng

APPLICANT: Shaw, George

TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN

FILE REFERENCE: D6287

CURRENT APPLICATION NUMBER: US/09184418C

CURRENT FILING DATE: 1999-11-02

NUMBER OF SEQ ID NOS: 112

SEQ ID NO 46

LENGTH: 43.07

TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1

FEATURE: OTHER INFORMATION: isolate=92NG003; gene=gag-pol fusion

J5-09-184-418C-48

Query Match Score 9.8; DB 1; Length 4307;
Best Local Similarity 84.6%; Pred. No. 84;
Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

2 TGTTAAATGGCAG 14
3560 TGATAATGTCAG 3572

RESULT 61
S-09-184-418C-3/C
Sequence 3, Application US/09184418C
PATENT INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287

CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 3 LENGTH: 8953

TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE: OTHER INFORMATION: isolate="90CR056"; 137..1639:gene="gag"; 4388..4966:gene="vif"; 5177..7182:gene="tat"; OTHER INFORMATION: 4306..5196:gene="vpr"; 5408..5610:gene="rpu"; OTHER INFORMATION: 5316..7972:gene="rev"; 5408..5610:gene="rpu"; OTHER INFORMATION: 5577..8114:gene="env"; 8117..8837:gene="ref"; S-09-184-418C-3

Query Match Score 9.8; DB 1; Length 8953;
Best Local Similarity 84.6%; Pred. No. 51;
Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

5 TAAATGGCAGCT 17
4630 TAAATGCCATTCT 4618

RESULT 62
S-09-184-418C-36/C
Sequence 36, Application US/09184418C
PATENT INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287

CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 36 LENGTH: 2538

TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE: OTHER INFORMATION: isolate=90CR056; gene=env
S-09-184-418C-36
Query Match Score 9.6; DB 1; Length 2538;
Best Local Similarity 75.0%; Pred. No. 1.2e-02;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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QY      4 TTAATGGCAGTCTAG 19
Db      US-09-184-418C-54/C
QY      ; Sequence 54, Application US/09184418C
Db      ; Patent No. 6492110
QY      ; GENERAL INFORMATION:
Db      ; APPLICANT: Hahn, Beatrice
Db      ; APPLICANT: Gao, Feng
Db      ; APPLICANT: Shaw, George
Db      ; TITLE OF INVENTION: CLOVES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
Db      ; FILE REFERENCE: D6287
Db      ; CURRENT APPLICATION NUMBER: US/09/184, 418C
Db      ; CURRENT FILING DATE: 1999-11-02
Db      ; NUMBER OF SEQ ID NOS: 112
Db      ; SEQ ID NO: 54
Db      ; LENGTH: 2538
Db      ; TYPE: DNA
Db      ; ORGANISM: Human immunodeficiency virus type 1
Db      ; FEATURE:
Db      ; OTHER INFORMATION: isolate=92NG003; gene=env
Db      ; OS-09-184-418C-54

Query Match      48.0%; Score 9.6; DB 1; Length 2538;
Best Local Similarity 75.0%; Pred. No. 1.2e+02;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY      2 TGTAAATGGCAGTCT 17
Db      | ||| |||| | | | |
Db      1204 TCTTACATGGAGTGT 1189

RESULT 64
US-09-184-418C-28/C
QY      ; Sequence 28, Application US/09184418C
Db      ; Patent No. 6492110
QY      ; GENERAL INFORMATION:
Db      ; APPLICANT: Hahn, Beatrice
Db      ; APPLICANT: Gao, Feng
Db      ; APPLICANT: Shaw, George
Db      ; TITLE OF INVENTION: CLOVES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
Db      ; FILE REFERENCE: D6287
Db      ; CURRENT APPLICATION NUMBER: US/09/184, 418C
Db      ; CURRENT FILING DATE: 1999-11-02
Db      ; NUMBER OF SEQ ID NOS: 112
Db      ; SEQ ID NO: 28
Db      ; LENGTH: 2550
Db      ; TYPE: DNA
Db      ; ORGANISM: Human immunodeficiency virus type 1
Db      ; FEATURE:
Db      ; OTHER INFORMATION: isolate=92NG003; gene=env
Db      ; OS-09-184-418C-28

Query Match      48.0%; Score 9.6; DB 1; Length 2550;
Best Local Similarity 75.0%; Pred. No. 1.2e+02;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY      2 TGTAAATGGCAGTCT 17
Db      | ||| |||| | | | |
Db      1213 TTTTACATGGAGTGT 1198

RESULT 65
US-09-184-418C-51/C
QY      ; Sequence 51, Application US/09184418C
Db      ; Patent No. 6492110
QY      ; GENERAL INFORMATION:
Db      ; APPLICANT: Hahn, Beatrice

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APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 51
 LENGTH: 2579
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=92NG003; gene=tat
 US-09-184-418C-51

Query Match
 Best Local Similarity 75.0%; Score 9.6; DB 1; Length 2579;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 Qy 2 TGTAAATGGCAAGTCT 17
 Db 1592 TCTTACATGGAGTGT 1577

RESULT 66
 US-09-184-418C-25/c
 Sequence 25, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 APPLICANT: Hahn, Beatrice
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 25
 LENGTH: 2557
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=92NG003; gene=tat
 US-09-184-418C-25

Query Match
 Best Local Similarity 75.0%; Score 9.6; DB 1; Length 2597;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 Qy 2 TGTAAATGGCAAGTCT 17
 Db 1607 TCTTACATGGAGTGT 1592

RESULT 67
 US-09-184-418C-33/c
 Sequence 33, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 APPLICANT: Hahn, Beatrice
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 33
 LENGTH: 2606
 TYPE: DNA

ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=90CR056; gene=tat; CDS: join (5177..5391,
 OTHER INFORMATION: 7698..7782);
 US-09-184-418C-33

Query Match
 Best Local Similarity 75.0%; Score 9.6; DB 1; Length 2606;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 Qy 4 TTAAATGGCAAGTCTAG 19
 Db 1164 TTAAATAGCGTTGAG 1149

RESULT 68
 US-09-184-418C-52/c
 Sequence 52, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 52
 LENGTH: 2645
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=92NG003; gene=rev
 US-09-184-418C-52

Query Match
 Best Local Similarity 75.0%; Score 9.6; DB 1; Length 2645;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 Qy 2 TGTAAATGGCAAGTCT 17
 Db 1453 TCTTACATGGAGTGT 1438

RESULT 69
 US-09-184-418C-34/c
 Sequence 34, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO: 34
 LENGTH: 2657
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: isolate=90CR056; gene=rev; CDS: join(5316..5391,
 OTHER INFORMATION: 7658..7972);
 US-09-184-418C-34

Query Match
 Best Local Similarity 75.0%; Score 9.6; DB 1; Length 2657;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 4 TAAATGGCAGTCAG 19
 Db 1025 TTAAATGGCAGTCAG 1010

RESULT 70
 US-09-184-418C-26/c
 Sequence 26, Application US/09184418C
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 26
 LENGTH: 2663
 TYPE: DNA
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 26
 LENGTH: 2663
 OTHER INFORMATION: Isolate=92NG083; gene=rev
 US-09-184-418C-26

Query Match 48.0%; Score 9.6; DB 1; Length 2663;
 Best Local Similarity 75.0%; Pred. No. 1.2e+02;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2 TGTAAATGGCAGTC 17
 Db 1468 TTATACATGGAGCT 1453

RESULT 71
 US-09-184-418C-101/c
 Sequence 101, Application US/09184418C
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 101
 LENGTH: 3011
 TYPE: DNA
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 101
 LENGTH: 3011
 OTHER INFORMATION: Isolate=94IN476.104; gene=pol
 US-09-184-418C-101

Query Match 48.0%; Score 9.6; DB 1; Length 3011;
 Best Local Similarity 75.0%; Pred. No. 1.1e+02;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 5 TAAATGGCAGTCAGC 20
 Db 1220 TCATGACAGTCAGC 1205

RESULT 72
 US-09-184-418C-57/c
 Sequence 57, Application US/09184418C
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice

RESULT 73
 US-09-184-418C-92/c
 Sequence 92, Application US/09184418C
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 92
 LENGTH: 3012
 OTHER INFORMATION: Isolate=94CY017.41; gene=pol
 US-09-184-418C-92

Query Match 48.0%; Score 9.6; DB 1; Length 3012;
 Best Local Similarity 75.0%; Pred. No. 1.1e+02;
 Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 5 TAAATGGCAGTCAGC 20
 Db 1232 TCATGACAGTCAGC 1217

RESULT 74
 US-09-184-418C-83/c
 Sequence 83, Application US/09184418C
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,418C
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 83
 LENGTH: 3017

TYPE: DNA
FEATURE: OTHER INFORMATION: isolate=96AM751.3; gene=pol
S-09-184-418C-83

Query Match. Score 9.6; DB 1; Length 3017;
Best Local Similarity 75.0%; Pred. No. 1.1e+02;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Y 5 TAATGGAGTCAGC 20
b 1238 TCATTGACAGTCAGC 1223

RESULT 75
Sequence 48, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 48
LENGTH: 4307
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=92NGQ03; gene=gag-pol fusion
S-09-184-418C-48

Query Match. Score 9.6; DB 1; Length 4307;
Best Local Similarity 75.0%; Pred. No. 89;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Y 5 TAATGGAGTCAGC 20
b 2527 TCATTGACAGTCAGC 2512

RESULT 76
Sequence 6, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 6
LENGTH: 8954
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=93BR029; 142..1579; gene="gag"; 1437..4448; gene="pol";
OTHER INFORMATION: 4333..4971; gene="vif"; 4911..5201; gene="vpr";
OTHER INFORMATION: 5182..7782; gene="tat"; 5321..7972; gene="rev";
OTHER INFORMATION: 5566..8114; gene="env"; 8116..8736; gene="nef"
S-09-184-418C-6

Query Match. Score 9.6; DB 1; Length 8954;
Best Local Similarity 75.0%; Pred. No. 52;

Y 2 TGTAAATGGAGTC 17
b 6775 TCATTGACAGTCAGC 6760

RESULT 77
Sequence 48, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 11
LENGTH: 8959
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=94IN476; 104; 138..1613; "gag";
OTHER INFORMATION: 1418..4228; "pol"; 4361..4930; "vif"; 5289..5939; "vpr";
OTHER INFORMATION: 5150..5782; "tat"; 5323..5767; "rev"; 5378..5638; "vpu";
OTHER INFORMATION: 5556..8129; "env"; 8131..875; "nef"
US-09-184-418C-11

Query Match. Score 9.6; DB 1; Length 8959;
Best Local Similarity 75.0%; Pred. No. 52;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Y 5 TAATGGAGTCAGC 20
b 2637 TCATTGACAGTCAGC 2622

RESULT 78
Sequence 5, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 5
LENGTH: 8966
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate="92NG003"; 157..1650; gene="gag"; 4400..4496; gene="vpr";
OTHER INFORMATION: 4926..5039; gene="vpr"; 5184..7762; "tat";
OTHER INFORMATION: 5323..7967; gene="rev"; 5425..5654; gene="vpu";
OTHER INFORMATION: 5572..8109; gene="env"; 8111..8731; gene="nef"
US-09-184-418C-5

Query Match. Score 9.6; DB 1; Length 8966;
Best Local Similarity 75.0%; Pred. No. 52;
Matches 12; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Y 2 TGTAAATGGAGTC 17


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FILE REFERENCE: D6287
| CURRENT APPLICATION NUMBER: US/09/184,418C
| NUMBER OF SEQ ID NOS: 112
| SEQ ID NO: 108
| LENGTH: 624
| TYPE: DNA
| ORGANISM: Human immunodeficiency virus type 1
| FEATURE:
| OTHER INFORMATION: Isolate=94IN476.104; gene=nef
US-09-184-418C-108
Query Match 84 Score 9.4; DB 1; Length 624;
Best Local Similarity 68.4%; Pred. No. 2e+02;
Matches 13; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
Qy 1 CTGTTAAATGGCAGCTAG 19
Db 280 CTTTTAAAGAAGGGGAG 262
RESULT 85
US-09-184-418C-41/c
| Sequence 41; Application US/09184418C
| Patent No. 6492110
| GENERAL INFORMATION:
| | APPLICANT: Hahn, Beatrice
| | APPLICANT: Gao, Feng
| | APPLICANT: Shaw, George
| | TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
| | FEATURE:
| | OTHER INFORMATION: Isolate=94IN476.104; gene=nef
| CURRENT APPLICATION NUMBER: US/09/184,418C
| CURRENT FILING DATE: 1999-11-02
| NUMBER OF SEQ ID NOS: 112
| SEQ ID NO: 41
| LENGTH: 2640
| TYPE: DNA
| ORGANISM: Human immunodeficiency virus type 1
| TITLE OF INVENTION: gene=nef
| OTHER INFORMATION: Isolate=92RW009; gene=nef
US-09-184-418C-41
Query Match 84 Score 9.2; DB 1; Length 2640;
Best Local Similarity 78.6%; Pred. No. 1.3e+02;
Matches 11; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Qy 1 CTGTTAAATGGCAG 14
Db 1016 CTGTTAAATGGCTG 1003
RESULT 87
US-09-184-418C-42/c
| Sequence 42; Application US/09184418C
| Patent No. 6492110
| GENERAL INFORMATION:
| | APPLICANT: Hahn, Beatrice
| | APPLICANT: Gao, Feng
| | APPLICANT: Shaw, George
| | TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
| | FEATURE:
| | OTHER INFORMATION: Isolate=94IN476.104; gene=nef
| CURRENT APPLICATION NUMBER: US/09/184,418C
| CURRENT FILING DATE: 1999-11-02
| NUMBER OF SEQ ID NOS: 112
| SEQ ID NO: 42
| LENGTH: 2658
| TYPE: DNA
| ORGANISM: Human immunodeficiency virus type 1
| TITLE OF INVENTION: gene=nef
| OTHER INFORMATION: Isolate=92RW009; gene=rev
US-09-184-418C-42
Query Match 85 Score 9.2; DB 1; Length 2658;
Best Local Similarity 78.6%; Pred. No. 1.3e+02;
Matches 11; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Qy 1 CTGTTAAATGGCAG 14
Db 877 CTGTTAAATGGCTG 864
RESULT 88
US-09-184-418C-44
| Sequence 44; Application US/09184418C
| Patent No. 6492110
| GENERAL INFORMATION:
| | APPLICANT: Hahn, Beatrice
| | APPLICANT: Gao, Feng
| | APPLICANT: Shaw, George
| | TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
| | FEATURE:
| | OTHER INFORMATION: Isolate=92RW009; gene=env
| CURRENT APPLICATION NUMBER: US/09/184,418C
| CURRENT FILING DATE: 1999-11-02
| NUMBER OF SEQ ID NOS: 112
| SEQ ID NO: 44
| LENGTH: 2583
| TYPE: DNA
| ORGANISM: Human immunodeficiency virus type 1
| FEATURE:
| | OTHER INFORMATION: Isolate=92RW009; gene=env
US-09-184-418C-44

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JS-09-184-418C-21/C
: Sequence 21, Application US/09184418C
: GENERAL INFORMATION:
: APPLICANT: Hahn, Beatrice
: APPLICANT: Gao, Feng
: APPLICANT: Shaw, George
: TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
: TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
: FILE REFERENCE: D6287
: CURRENT APPLICATION NUMBER: US/09/184,418C
: CURRENT FILING DATE: 1999-11-02
: NUMBER OF SEQ ID NOS: 112
: SEQ ID NO 21
: LENGTH: 207
: TYPE: DNA
: ORGANISM: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92NG083; gene=gag
: FEATURE:
: OTHER INFORMATION: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92NG083; gene=gag
: IS-09-184-418C-21
: Query Match 45.0%; Score 9; DB 1; Length 207;
: Best Local Similarity 70.6%; Pred. No. 3.1e+02; Mismatches 0; Indels 0; Gaps 0;
: Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
: Qy 1 CCGTTAATGGCAGTCT 17
: Db 143 CCGTTAATGGCAGTCT 127
: RESULT 89
: IS-09-184-418C-40
: Sequence 40, Application US/09184418C
: GENERAL INFORMATION:
: APPLICANT: Hahn, Beatrice
: APPLICANT: Gao, Feng
: APPLICANT: Shaw, George
: TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
: TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
: FILE REFERENCE: D6287
: CURRENT APPLICATION NUMBER: US/09/184,418C
: CURRENT FILING DATE: 1999-11-02
: NUMBER OF SEQ ID NOS: 112
: SEQ ID NO 40
: LENGTH: 291
: TYPE: DNA
: ORGANISM: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: OTHER INFORMATION: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: IS-09-184-418C-40
: Query Match 45.0%; Score 9; DB 1; Length 291;
: Best Local Similarity 70.6%; Pred. No. 2.9e+02; Mismatches 0; Indels 0; Gaps 0;
: Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
: Qy 4 TTAATGGCAGTCTAGC 20
: Db 66 TTAGAGGCACTAAGC 82
: RESULT 90
: IS-09-184-418C-63
: Sequence 63, Application US/09184418C
: GENERAL INFORMATION:
: APPLICANT: Hahn, Beatrice
: APPLICANT: Gao, Feng
: APPLICANT: Shaw, George
: TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
: TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
: FILE REFERENCE: D6287
: CURRENT APPLICATION NUMBER: US/09/184,418C
: CURRENT FILING DATE: 1999-11-02
: NUMBER OF SEQ ID NOS: 112
: SEQ ID NO 45
: LENGTH: 624
: TYPE: DNA
: ORGANISM: Human immunodeficiency virus type 1
: FEATURE:
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: OTHER INFORMATION: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: IS-09-184-418C-45
: Sequence 45, Application US/09184418C
: GENERAL INFORMATION:
: APPLICANT: Hahn, Beatrice
: APPLICANT: Gao, Feng
: APPLICANT: Shaw, George
: TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
: TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
: FILE REFERENCE: D6287
: CURRENT APPLICATION NUMBER: US/09/184,418C
: CURRENT FILING DATE: 1999-11-02
: NUMBER OF SEQ ID NOS: 112
: SEQ ID NO 45
: LENGTH: 624
: TYPE: DNA
: ORGANISM: Human immunodeficiency virus type 1
: FEATURE:
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: OTHER INFORMATION: Human immunodeficiency virus type 1
: OTHER INFORMATION: isolate=92RN009; gene=vpr
: IS-09-184-418C-45
: Sequence Match
: Query Match 45.0%; Score 9; DB 1; Length 624;

```


NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 89
 LENGTH: 2544
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-89

RESULT 98
 Query Match 45.0%; Score 9; DB 1; Length 2544;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 90
 4 TTAAATGGCAGCTAGC 20
 557 TTAAATGGTACTATAC 541

OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-98/c
 Sequence 98, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,41BC
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 98
 LENGTH: 2598
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: Isolate=94CY017.41; gene=env
 -09-184-41BC-98

RESULT 99
 Query Match 45.0%; Score 9; DB 1; Length 2598;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 99
 2 TGTTAAATGGCAGCTCA 18
 1040 TGTAATGTCATTCCA 1024

OTHER INFORMATION: Isolate=94CY017.41; gene=env
 -09-184-41BC-99

RESULT 100
 Query Match 45.0%; Score 9; DB 1; Length 2646;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 100
 4 TTAAATGGCAGCTAGC 20
 597 TTAAATGGTACTATAC 957

OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-86/c
 Sequence 96, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,41BC
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 95
 LENGTH: 2646
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: Isolate=94CY017.41; gene=env
 -09-184-41BC-86

RESULT 101
 Query Match 45.0%; Score 9; DB 1; Length 2655;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 101
 2 TGTTAAATGGCAGCTCA 18
 1044 TGTAATGTCATTCCA 1428

OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-87
 Sequence 87, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,41BC
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 87
 LENGTH: 2631
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-87

RESULT 102
 Query Match 45.0%; Score 9; DB 1; Length 2631;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 102
 2 TGTTAAATGGCAGCTCA 1428

OTHER INFORMATION: Isolate=96AM751.3; gene=env
 -09-184-41BC-95
 Sequence 95, Application US/09184418C
 Patent No. 6492110
 GENERAL INFORMATION:
 APPLICANT: Hahn, Beatrice
 APPLICANT: Gao, Feng
 APPLICANT: Shaw, George
 TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
 FILE REFERENCE: D6287
 CURRENT APPLICATION NUMBER: US/09/184,41BC
 CURRENT FILING DATE: 1999-11-02
 NUMBER OF SEQ ID NOS: 112
 SEQ ID NO 95
 LENGTH: 2655
 TYPE: DNA
 ORGANISM: Human immunodeficiency virus type 1
 FEATURE:
 OTHER INFORMATION: Isolate=94CY017.41; gene=env
 -09-184-41BC-95

RESULT 103
 Query Match 45.0%; Score 9; DB 1; Length 2655;
 Best Local Similarity 70.6%; Pred. No. 1.4e+02;
 Matches 12; Conservative 0; Mismatches 5; Indels 0;
 Gaps 0;
 SEQ ID NO 103
 2 TGTTAAATGGCAGCTCA 1428

```

; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE NUMBER: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 95
; LENGTH: 2741
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94CY017.41; gene=rev
US-09-184-418C-95

Query Match 44.0%; Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY      6 AAATGGCAGTCT 17
Db      242 AAATGCCAATCT 231

RESULT 105
US-09-184-418C-49/C
Sequence 49; Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE NUMBER: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 49
; LENGTH: 579
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92NG003; gene=vif
US-09-184-418C-49

Query Match 44.0%; Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY      6 AAATGGCAGTCT 17
Db      242 AAATGCCAAGCT 231

RESULT 106
US-09-184-418C-75
Sequence 75; Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE NUMBER: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 75
; LENGTH: 579
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92NG003; gene=vif
US-09-184-418C-75

Query Match 44.0%; Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY      6 AAATGGCAGTCT 17
Db      242 AAATGCCAAGCT 231

RESULT 104
US-09-184-418C-39/C
Sequence 39; Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE NUMBER: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 39
; LENGTH: 579
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92M651.8; gene=vif
US-09-184-418C-75

Query Match 44.0%; Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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QY 9 TGGCAGTCTAGC 20
 Db 305 TGGCAGACCAAGC 316

RESULT 107
 US-09-184-418C-75/C
 ; Sequence 75, Application US/09184418C
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 84
 ; LENGTH: 579
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=96ZM751.3; gene=vif
 ; US-09-184-418C-84

Query Match 44.0%; Score 8.8; DB 1; Length 579;
 Best Local Similarity 83.3%; Pred. No. 2.8e+0;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 6 AAATGGCAGTCT 17
 Db 242 AAATGCCATTCT 231

RESULT 110
 US-09-184-418C-93/C
 ; Sequence 93, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 93
 ; LENGTH: 579
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=94CY017.41; gene=vif
 ; US-09-184-418C-93

Query Match 44.0%; Score 8.8; DB 1; Length 579;
 Best Local Similarity 83.3%; Pred. No. 2.8e+0;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 6 AAATGGCAGTCT 17
 Db 242 AAGGCGCAGTCT 231

RESULT 111
 US-09-184-418C-102
 ; Sequence 102, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 102
 ; LENGTH: 579
 ; TYPE: DNA

RESULT 108
 US-09-184-418C-84
 ; Sequence 84, Application US/09184418C
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice
 ; APPLICANT: Gao, Feng
 ; APPLICANT: Shaw, George
 ; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
 ; FILE REFERENCE: D6287
 ; CURRENT APPLICATION NUMBER: US/09/184,418C
 ; CURRENT FILING DATE: 1999-11-02
 ; NUMBER OF SEQ ID NOS: 112
 ; SEQ ID NO 84
 ; LENGTH: 579
 ; TYPE: DNA
 ; ORGANISM: Human immunodeficiency virus type 1
 ; FEATURE:
 ; OTHER INFORMATION: isolate=96ZM751.3; gene=vif
 ; US-09-184-418C-84

Query Match 44.0%; Score 8.8; DB 1; Length 579;
 Best Local Similarity 83.3%; Pred. No. 2.8e+0;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 9 TGGCAGTCTAGC 20
 Db 305 TGGCAGACCAAGC 316

RESULT 109
 US-09-184-418C-84/C
 ; Sequence 84, Application US/09184418C
 ; Patent No. 6492110
 ; GENERAL INFORMATION:
 ; APPLICANT: Hahn, Beatrice

```

;
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE: OTHER INFORMATION: isolate=94IN476.104; gene=vif
US-09-184-418C-102

Query Match      44.0%  Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY      9 TGGCACTCTAGC 20
Db      305 TGGCAGACCAAGC 316

RESULT 112
US-09-184-418C-102/c
Sequence 102, Application US/09184418C
; Patent No. 6,921,10
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 102
; LENGTH: 579
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE: OTHER INFORMATION: isolate=94IN476.104; gene=vif
US-09-184-418C-102

Query Match      44.0%  Score 8.8; DB 1; Length 579;
Best Local Similarity 83.3%; Pred. No. 2.8e+02;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY      6 AAATGGCAAGCT 17
Db      242 AAATGCGAACT 231

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Search completed: September 11, 2003, 15:02:08
 Job time : 5 secs